3 CONVERSATIONS DURING MARKET VOLATILITY

Team Approach, Advanced Preparation & Active Management

Financial advisors know that discussing market volatility with clients is largely an emotional matter. After a long and fairly peaceful run, the stock market has been on a roller-coaster ride thus far in 2018, one that has included the first drop of at least 10% since 2016.

Use this quick guide to help begin those client conversations that re-evaluate investment risk tolerances, including preparing for various market outcomes.

June 2018

BUFFALO FUNDS

After February's 10% correction many equity indexes are back to where they started in 2018, but we expect that advisors are taking more client calls than they typically would for a market that is basically flat year-to-date.

For many, the 2008-2009 financial crisis and resulting severe bear market is still fresh in mind, so it's no wonder clients are asking if they're positioned to protect against heavy losses. After all, their recovery time horizon is 10 years shorter now than it was back then.

Financial advisors report their clients' top two priorities are managing downside risk, while achieving growth.

Why shouldn't investors want it all: low risk and maximum gain? As industry professionals, we know building wealth doesn't happen that way. Keeping a client's emotional tendencies in check is easy during smooth advancing markets, but gets challenging when things jump out of line.

Remember, volatility is driven by uncertainty: traders panic and sell based on the latest data point that comes across the wire, and clients get anxious and want to make rash decisions in an emotional "flight to safety".

Advisors must make sure their clients have realistic expectations, keep them focused on their long-term objectives, and help them maintain discipline during discouraging periods, in order to potentially reap long-term rewards.

How do I stay on plan when things are chaotic?

Who's looking out for my future?

Can my financial advisor do more to add risk management?

Is now a good time to sell?

FOCUS ON DOWNSIDE PROTECTION

A simple tool advisors can use to analyze an investment's expected volatility is to evaluate downside market capture.

Downside capture, a popular ratio that highlights how correlated a fund is to a market drawdown, is an effective method to analyze potential expected performance.

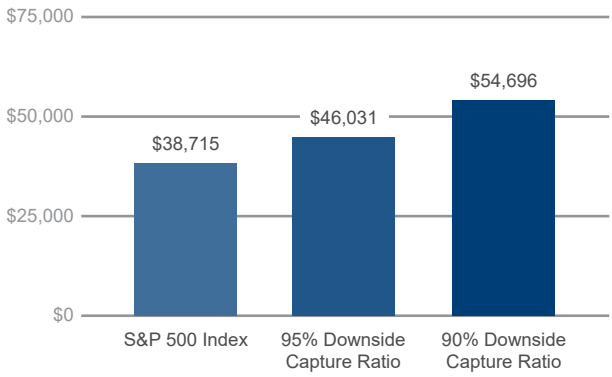
Strategies with strong downside capture ratios typically do not give back as much as their primary performance benchmark during market pullbacks. Strategies with a lower downside capture ratio (think golf... the lower the score, the better) indicate the ability to preserve wealth during market retreats.

Over time, with the added benefit of compound growth, a lower downside capture can add significant value to a client's portfolio and produce a smoother ride along the way.

Protecting portfolio declines is even more apparent when we look at the math of gains vs. losses in percentage terms. For example, a 10% gain following a 10% loss won't get you back to even. A loss of 10% on an initial investment of $100 leaves a value of $90. A 10% gain on $90 results in a value of $99, or $1 short of your starting amount. For a client taking withdrawals from their account, the picture gets even uglier, as cash disbursements compound losses exponentially.

Focusing on downside protection is a necessary strategy for advisors to discuss with their clients.

Hypothetical Growth of a $10,000 Investment
20-Year Period Ended September 30, 2017



Source: Morningstar. Downside Capture Ratio totals were calculated by including 95% and 90% of the S&P 500 Index's return for the months when the Index's return was negative. This chart illustrates the performance of a hypothetical $10,000 investment made in index since 10/1/1997. Assumes reinvestment of dividends and capital gains, but does not reflect the effect of redemption of fees. This chart does not imply any future performance.

Returns Required to Recover Losses

Loss	**1-Year Return** Required to Recover Initial Loss	**Cumulative Returns** Required to Recover Initial Loss[1]
▼10%	+11%	+44%
▼20%	+25%	+62%
▼30%	+43%	+85%
▼40%	+67%	+115%

[1]Assuming 5% withdrawal rate over 5 years

DELIVERING VALUE IN ALL-WEATHER CONDITIONS

The ultimate goal for many actively-managed mutual funds is to achieve as much upside market capture as possible, while minimizing the downside capture. While optimistic, an ideal goal would be to achieve a ratio of 90:70, meaning the fund captures 90% of every market rally but only falling 70% as much as the market during every sell-off. This could be considered a golden ratio, providing investors with downside protection while still beating the market over the long term.

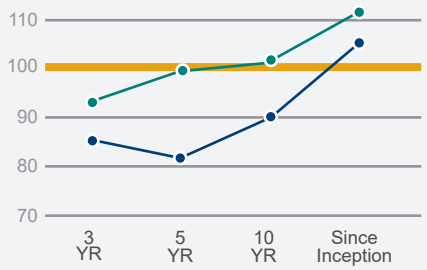
However, to achieve these goals, we believe a fund must have portfolio managers who are actively-managing the individual components of the portfolio, while keeping their eye on the long-term prize of market-beating returns in all market conditions.

HOW WE PERFORMED:

Upside and Downside Market Capture %

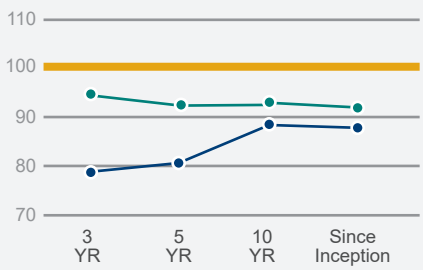
Buffalo Discovery Fund
vs Russell Midcap Growth Index

	Upside	Downside
3 Years	93.14	86.38
5 Years	99.88	82.65
10 Years	101.62	90.99
Since Inception	111.32	107.68



Buffalo International Fund
vs Russell Global ex-US Index

	Upside	Downside
3 Years	94.60	79.06
5 Years	92.13	80.59
10 Years	93.40	89.41
Since Inception	91.93	87.50



Annualized Performance (%) As of 3/31/18	1 Yr	5 Yr	10 Yr	Since Inception
Buffalo Discovery Fund (BUFTX)	17.35	14.55	13.44	9.30
Russell Midcap Growth Index	19.74	13.31	10.61	8.77
Buffalo International Fund (BUFIX)	18.32	8.55	5.49	4.57
Russell Global ex-US Index	16.83	6.80	3.28	2.01

The Buffalo Discovery Fund inception date is 4/16/2001 and expense ratio is 1.03%. Russell Midcap Growth Index calculated from 5/1/2001. The Buffalo International Fund inception date is 9/28/2007 and expense ratio is 1.05%. Russell Global ex-US Index calculated from 10/1/2007. Chart shows monthly intervals as of 4/30/2018. 100% means the fund is capturing all gains and losses of the benchmark index. Performance data quoted represents past performance and does not guarantee future results. Investment return and principal value will fluctuate and redemption value may be more or less than original cost. Fund performance current to the most recent month-end may be lower or higher than the performance quoted and can be obtained by visiting buffalofunds.com.

CLIENT CONVERSATION

#1

It Takes a Team...

Investment management, financial planning, estate planning, insurance needs analysis... and for some clients that are business owners, other demands such as group retirement plan design, monitoring, and administration come into the picture.

It's a lot for one person to handle. Modern approaches use a team structure, with the advisor as the point guard assisting with the selection of specialists who can add the most value within each area.

By partnering with other specialists, advisors attempt to execute a best of breed approach. Bill James, who sparked baseball's "moneyball" revolution with statistical analysis, gave a recent interview on the Econ Talk podcast. When asked what he's learned from his years with the Boston Red Sox, he responded:

> *"The most surprising thing was... how many people contribute to a championship... it's impossible to explain to an outsider how many people it requires doing how many different jobs at a high level to win a World Championship."*

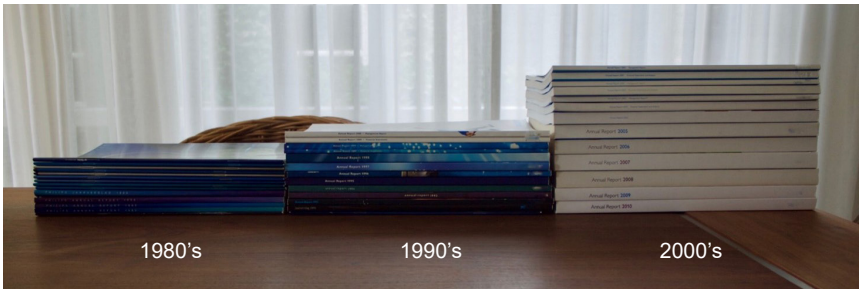
Instead of statistics and quantitative measures alone, James's response speaks to the sheer number of people required to succeed at a high level. Modern financial planning is no different.

According to Ernst&Young, annual reports for FTSE 350 companies average 186 pages, up 26% over the past five years. As disclosure requirements evolve and companies are expected to engage with a wider range of stakeholders, these reports will only get longer.

No advisor can be expected to read all the financial reporting of the sometimes hundreds or thousands of companies that make up benchmark indices or mutual funds. Advisors must instead rely on teams of analysts to help them decipher the data and make logical conclusions on future earnings and performance expectations.

We believe clients need a team of experts on their side, including one for investment management, that is prepared for increased market volatility.

Information Overload
The Growing Size of Annual Reports



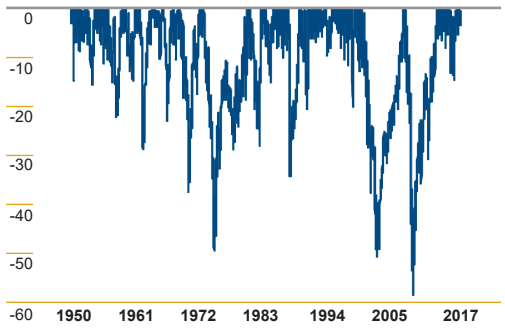
CLIENT CONVERSATION

#2

Preparation Matters...

No one likes losing money. Not only is it emotionally unnerving, but sudden portfolio losses can also derail an investor's progress, putting their financial goals and advisor trust at risk. The reality is market drawdowns are a normal and expected part of investing. In fact, since 1950, the S&P 500 Index has had 18 drawdowns of 20% of more, averaging one event nearly every 3.5 years.

Drawdowns Since 1950



Source: SSGA, as of May 31, 2017.
Past performance is not a guarantee of future results.

Everyone wishes they could predict the next market crash. Though the causes of corrections generally differ from one to another, the two major groupings include:

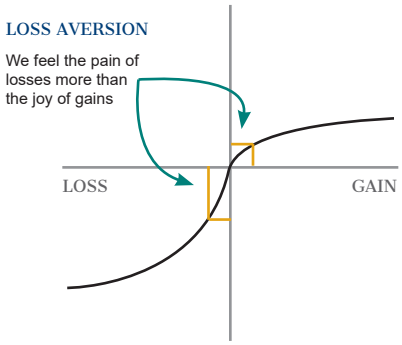
1. Longer-term bear markets that often coincide with economic recessions;
2. Corrections, or short-term selloffs that are an unpleasant but expected part of market cycle behavior that ultimately prove to be only a temporary negative event.

We make decisions about risk based on how we feel and how we think. Behavioral finance shows us investors are hardwired to overpay for loss aversion. One of the most prominent theories that signaled the emergence of behavioral finance is called Prospect Theory.

The Prospect Theory value function helps us understand the impact of losses and gains relative to a starting reference point.

The function is designed to take into account the reference points of avoiding loss and achieving gains. As seen in the figure below, the reference point is the origin, and the function is steeper for losses than it is for gains. In layman's terms, an ounce of pain hurts worse than an ounce of gain satisfies.

Prospect Theory



Source: Kahneman & Tversky, 1979.

To keep clients focused on long-term goals during volatile markets, have a system in place to communicate how emotion can affect their decisions during periods of high stress.

A trusted financial advisor can prevent clients from making rash decisions during the heat of the moment. Selling based on fear should be avoided, when staying the course or sticking to the plan would be a better course of action long-term.

Advisors can prepare in advance to address clients' emotional reactions to normal market events. A rational conversation about expected volatility in the market will help keep them focused on the long-term plan.

CLIENT CONVERSATION

#3

The Value of Active Management...

New research from Bank of America Merrill Lynch shows the return of stock market volatility is benefiting active managers. Since the beginning of 2018 through April, 78% of actively-managed mutual funds focused on growth outpaced their indexes.

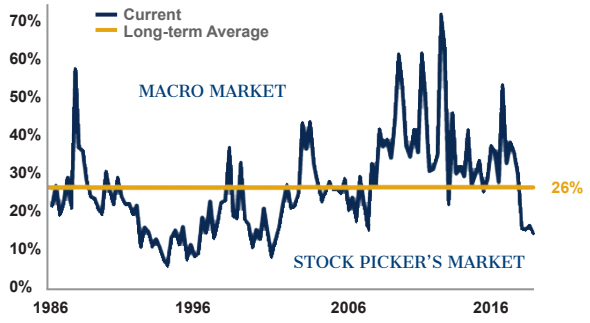
While rising rates and a strengthening dollar are tightening financial conditions, dispersion amongst individual stocks is benefiting strategies targeting scalable business models. According to Morningstar, during the first four months of 2018, nearly 60% of large cap active funds have outperformed their passive benchmarks.

Active strategies have taken their lumps since the financial crisis, but with dispersion between individual stocks picking up (i.e., lower correlations) markets might be starting to favor the common stock of premier companies with strong fundamentals and attractive business models, a classic hallmark of many active managers.

High correlations indicate that stocks are moving together, propelled by macro economic factors such as central bank activity or geopolitical events.

Correlation of Stocks in the S&P 500

Average stock correlations based on 90-day periods, daily frequency



Source: Bank of America Merrill Lynch

As seen in the previous chart, we are in the best stock-picking environment since before the 2008 crash, providing active fund managers an opportunity to beat their benchmarks through careful stock selection.

Active investment strategies have the potential to shine during volatile periods when company fundamentals and valuations matter as opposed to highly-correlated markets driven by momentum where market capitalization alone determines weightings within an index.

One misconception about active management that some research analysts possess is the notion that active management has become more about positioning a portfolio relative to an index than about identifying premier quality businesses on their own merit.

By specifically analyzing individual stock valuations and company fundamentals and their impact on future returns, active strategies add a layer of thought and potential risk management to weather the emotional swings of the market that passive strategies lack. We believe risk mitigation and active portfolio management go hand-in-hand.

To help financial advisors manage the emotional tendencies of their clients, active managers can help navigate market volatility and use it opportunistically when temporary market dislocations arise.

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ABOUT THE BUFFALO FUNDS

The Buffalo Funds are a family of 10 actively-managed mutual funds offering a variety of domestic equity, international equity, and income-generating investment strategies. Located in Mission, Kansas (a suburb of Kansas City), employee-owned Kornitzer Capital Management, Inc. (KCM) has been the exclusive investment advisor to the Funds since inception in 1994.

At KCM, we believe that patient investing backed by solid, intelligent research is the best way to achieve potential long-term financial rewards. Disciplined investment decisions are made using a distinct, time-tested investment approach guided by trend analysis, rigorous fundamental company research, and strict security valuation parameters.

Our fund family is characterized by a long-term growth investment strategy and a team-based, idea-sharing management style. "Trends and Patience" is our mantra, and our great strength.